



TOPIC WORKSHOPS

MAY 2018

tomorrow.norwalkct.org

A scenic view of a body of water, likely a lake or bay, with a small island in the distance. In the foreground, a white egret stands on a grassy bank next to a wooden fence. The text is overlaid on the water.

GREEN, SUSTAINABLE, AND RESILIENT NORWALK

Public Workshop | May 21, 2018

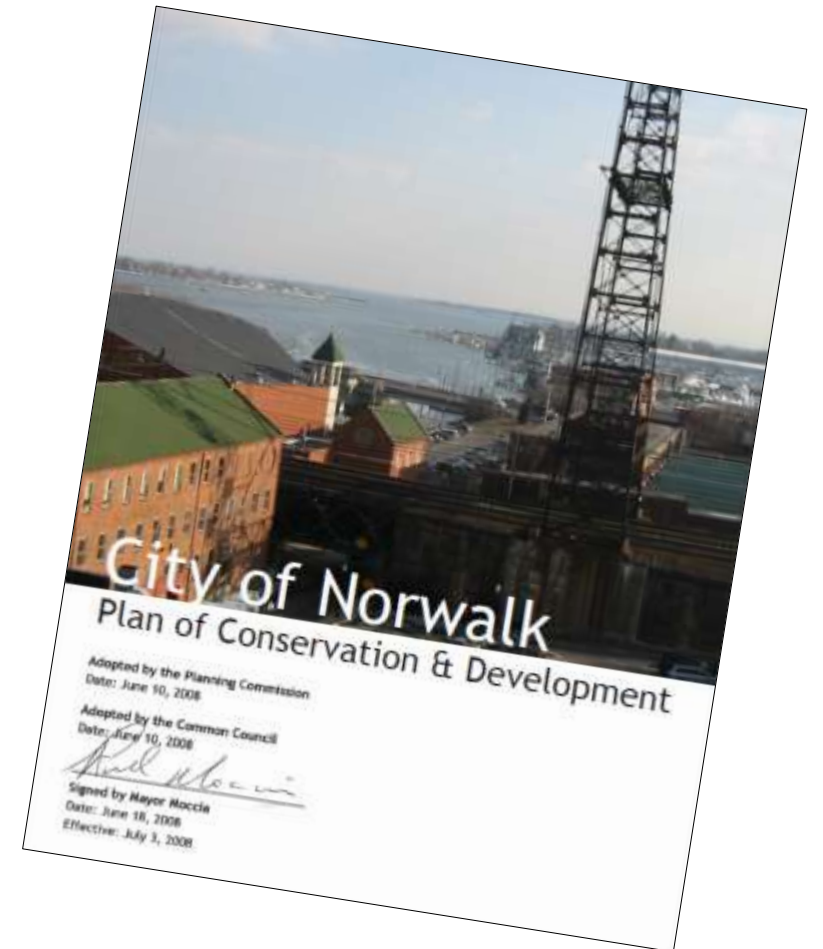
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Tonight's Agenda

- The planning process and the context of the plan
- Themes for discussion:
 - Parks, open space, and recreation
 - Sustainability and green practices
 - Resilience
 - Coastal management and the Harbor Management Plan
- Questions and discussion
- Participant exercises

The Citywide Plan is also called the Plan of Conservation & Development.

- The **only** plan that covers **the entire city**
- State-required update every ten years for eligibility for discretionary state funding
- State-required consideration of:
 - *renewable energy*
 - *sea level rise scenarios*
 - *consistency with the municipal coastal program to restore, protect, and reduce pollution in Long Island Sound*



Who's in the room?

- Smartphone survey

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Poll: What is your gender?

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Poll: How old are you?

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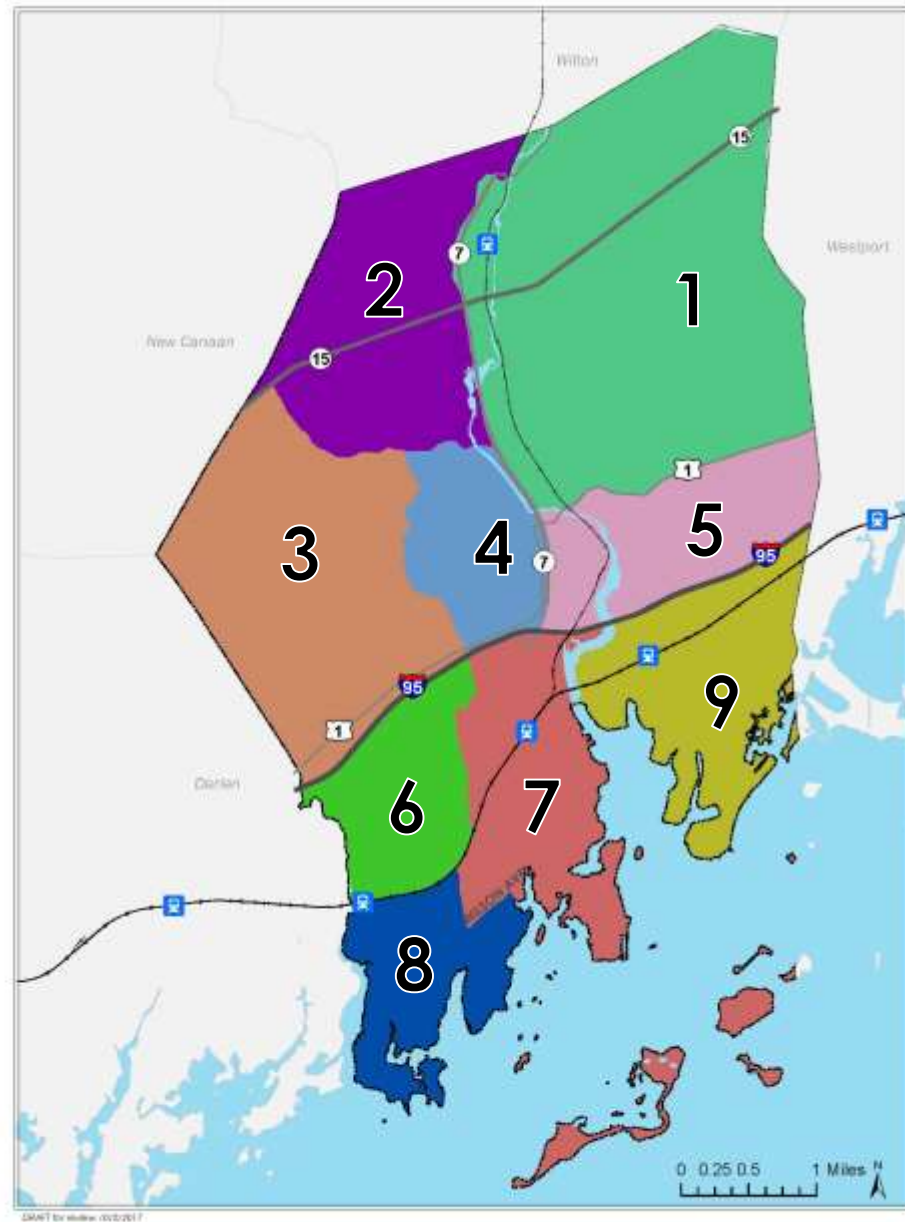
Poll: How do you describe yourself?

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Poll: Are you Hispanic/Latino?

What part of the City do you live in?



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Poll: What part of the City do you live in?

November 18, 2017

November 18, 2017

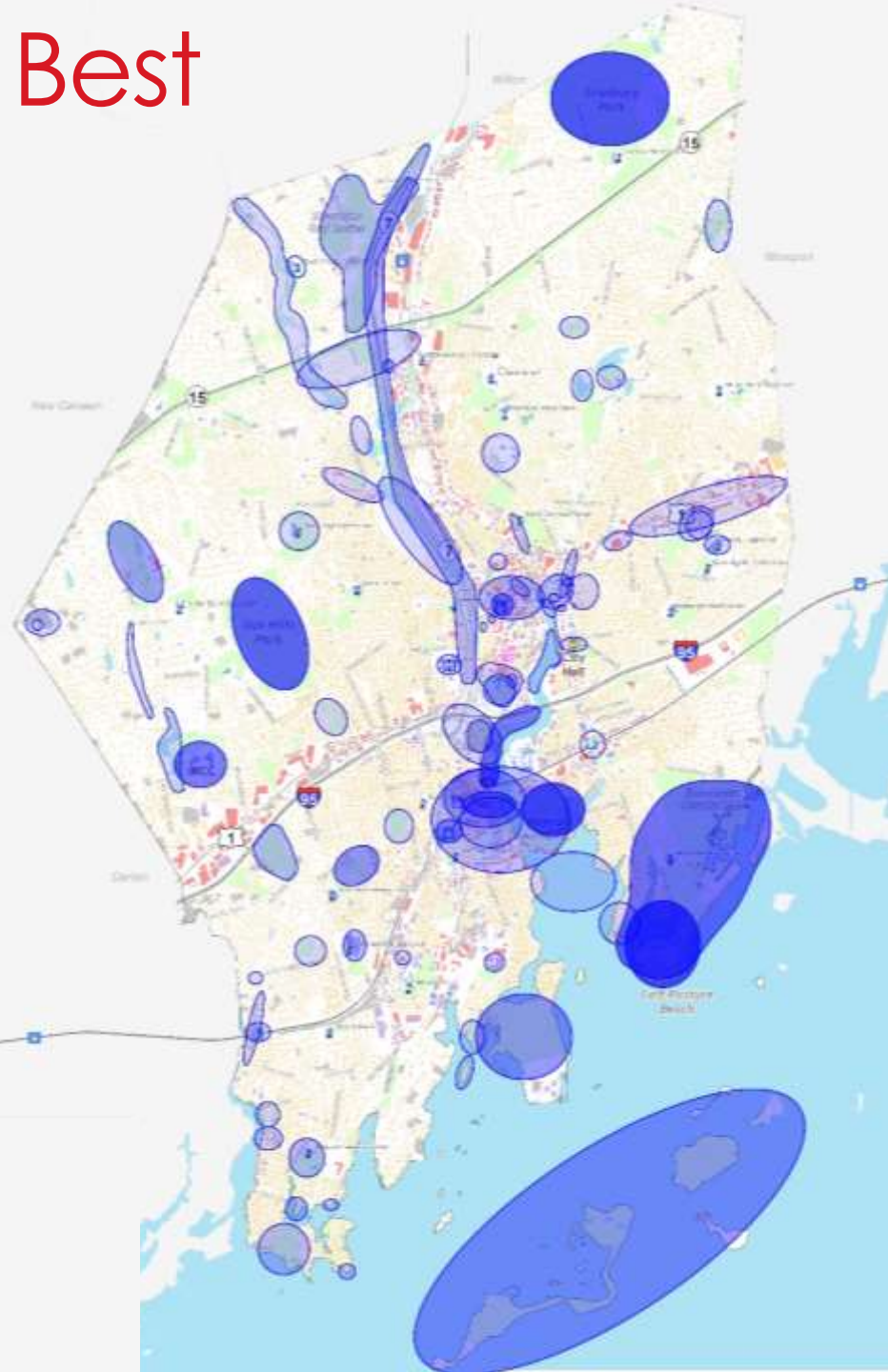


Neighborhood Meetings

March 2018



Best



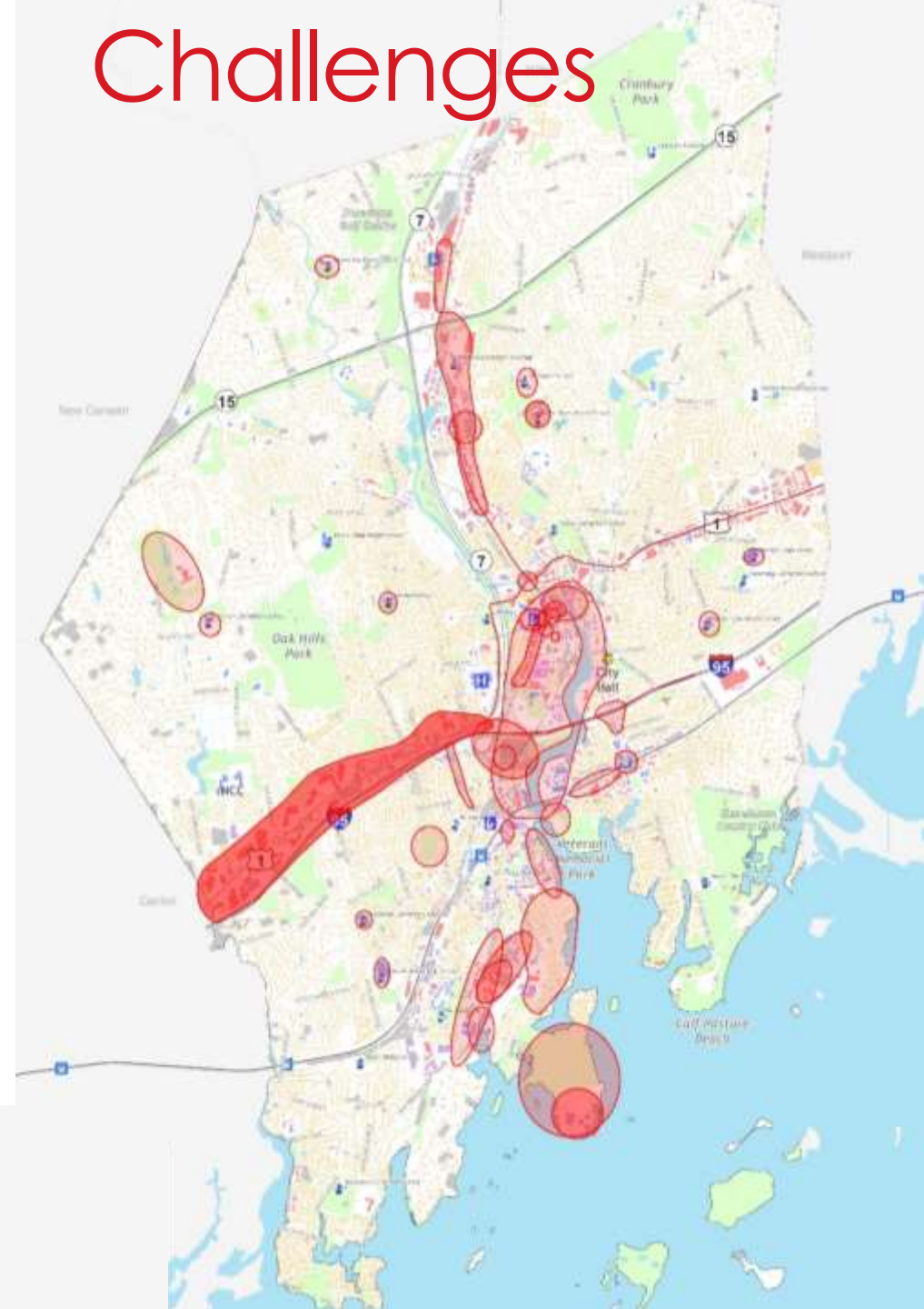
Best:

Parks
Beaches
Islands
Rivers
SoNo

Challenges:

Route 1
Main Avenue
Industrial areas

Challenges



Tonight's focus – goals, strategies, actions – in the ten-year context

WHAT?

The ten-year goals: what are we trying to accomplish?

WHY?

Reasons for the goals

HOW?

Ten-year strategies and example actions to achieve the goal

The **Context** for planning

2019-2023: **First five years for implementation**

- Substantial City funding already committed to school projects.
- Focus on preparing frameworks, collaborative systems, funding proposals.

2024-2028: **Second five years for implementation**

- Project implementation within new frameworks.
- Continue collaborative systems and funding proposals.

PARKS – OPEN SPACE – RECREATION

A variety of parks and open spaces but no open space system plan



Recreation & Parks Department operations

- Recreation Department maintains 1,215 acres
 - 32 parks, 19 school sites, and other city owned property
- Recreation fees go back to the general fund, ~ \$1.3 M annually.
- Special facilities and events include:
 - Dog Park
 - Leagues
 - Docks and marina
 - Concerts and events

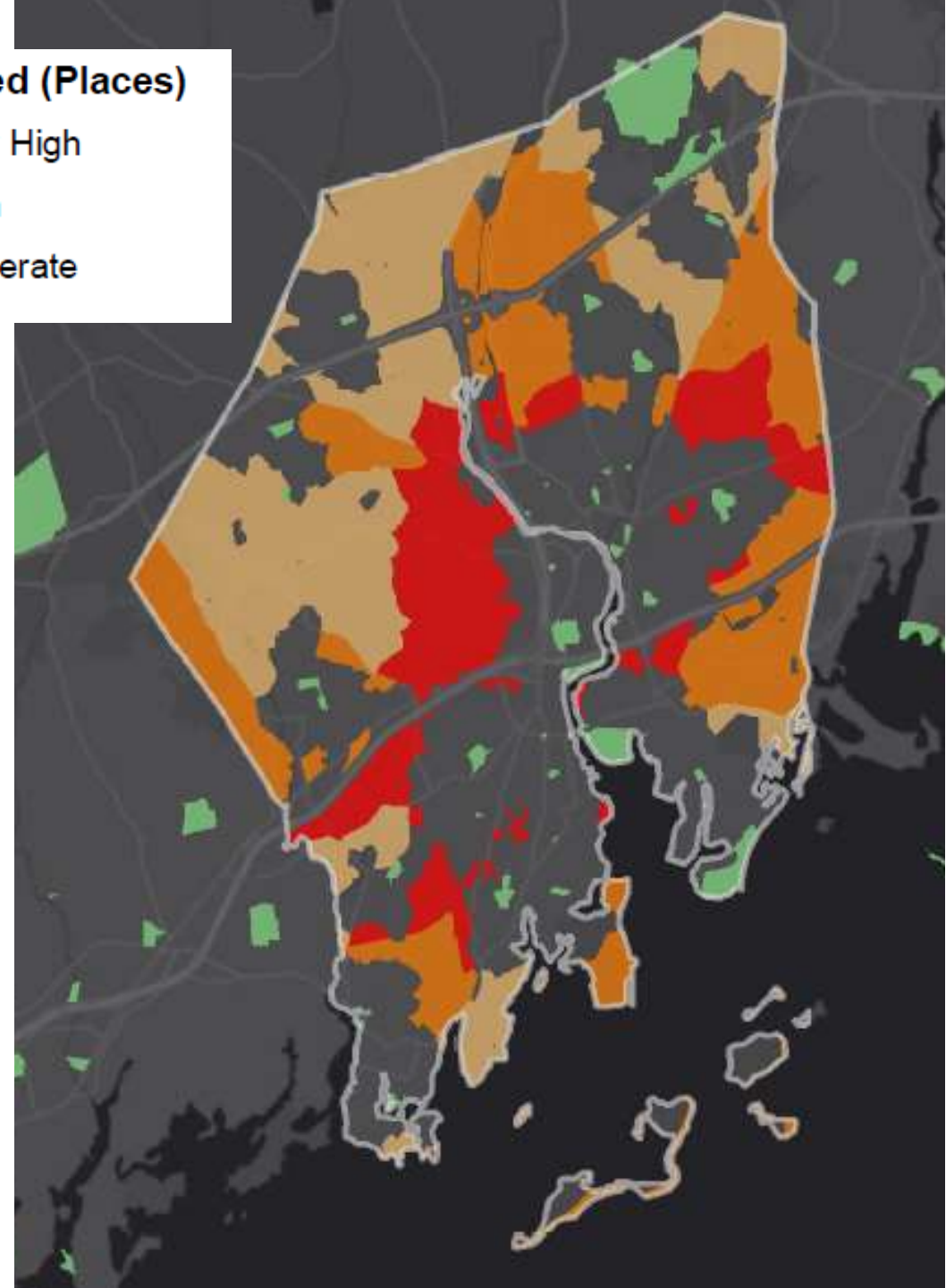
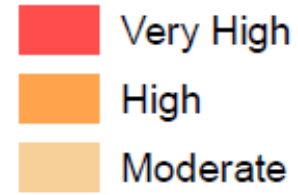


Level of service for parks

- Park service level in cities is best measured by walking access, not number of acres per 1,000 people
- About 52% of Norwalk residents live within a 10-minute walk of a park
- Areas most underserved
 - Denser single family neighborhoods around the urban core

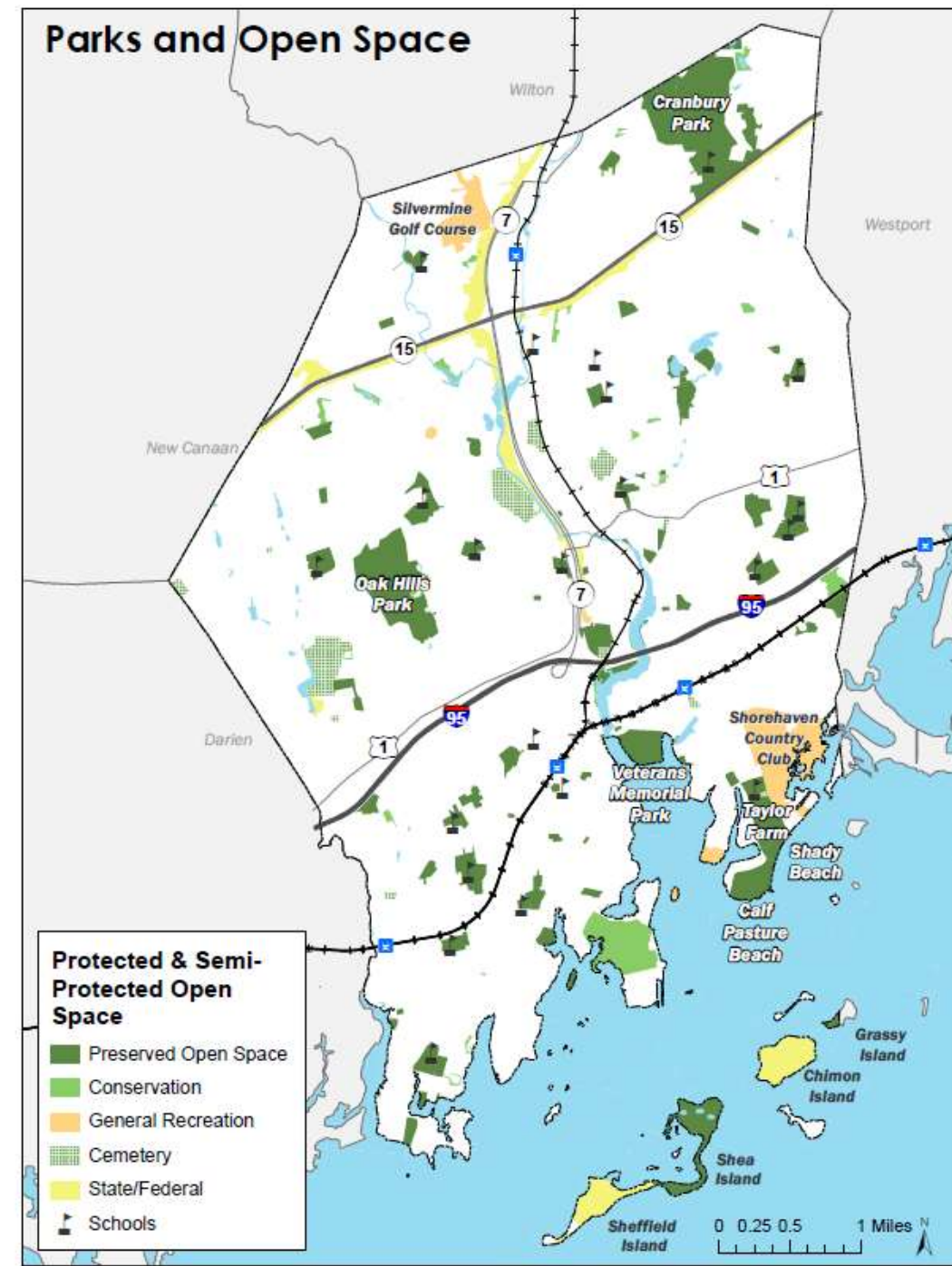
• *Data from Trust for Public Land, ParkServe*

Park Need (Places)

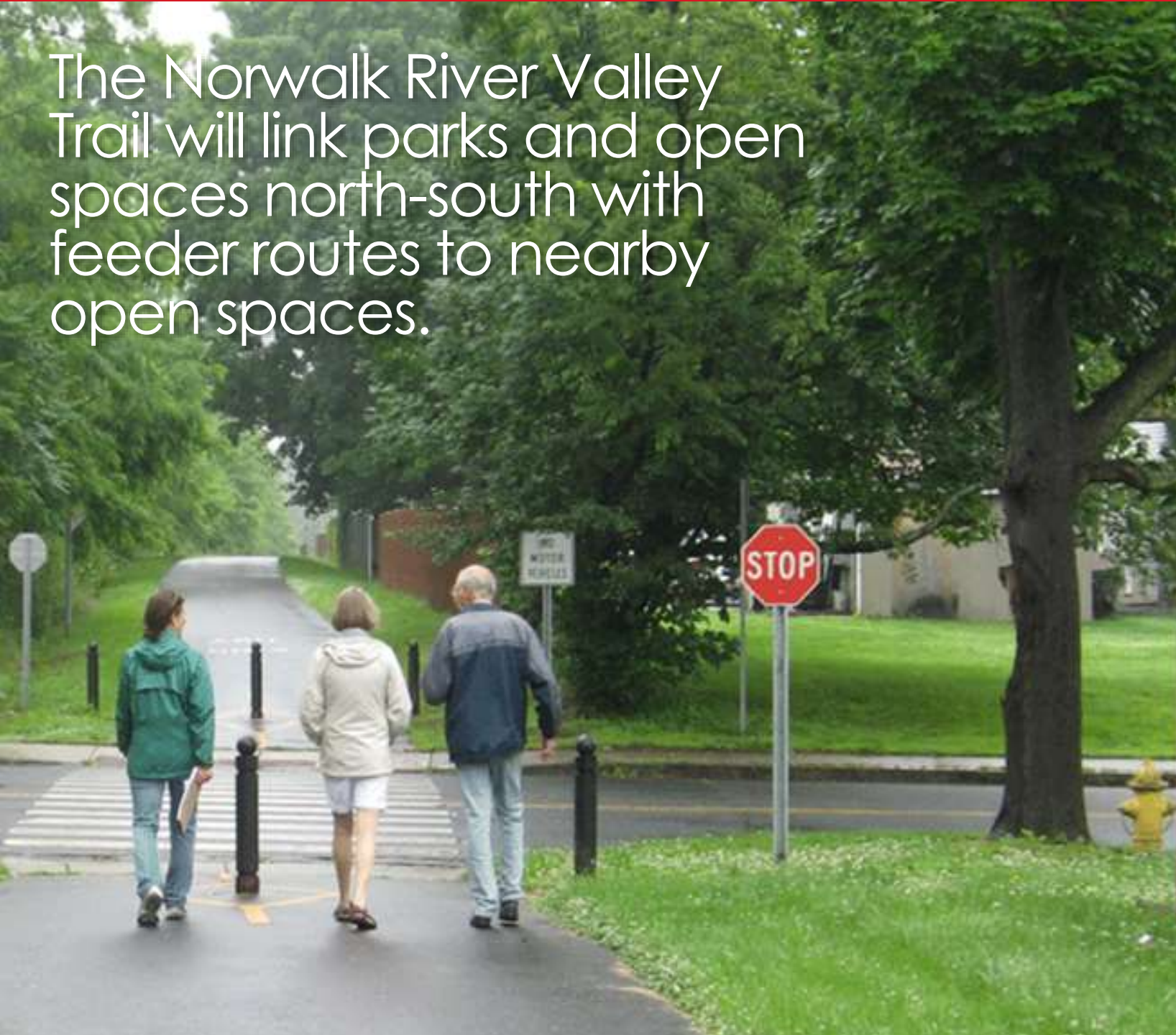


Many parks are intended to serve the whole city as well as neighborhoods

- Veteran's Memorial Park
- Oyster Shell Park
- Calf Pasture Park
- Shady Beach
- Taylor Farm
- Fodor Farm
- Oak Hills Park Golf Course
- Mathews Park
- Cranbury Park



The Norwalk River Valley Trail will link parks and open spaces north-south with feeder routes to nearby open spaces.



Norwalk has programs to maintain and preserve the urban forest (both public and private trees)

- **Tree City USA designation**
- **2009 Tree Management Plan**
- **Tree Advisory Committee**
- **Urban Forest Improvement Program** for public trees; implemented by the Recreation and Parks Dept and DPW
- **Fodor Tree Farm** – municipal tree farm
- Public trees in GIS
- Neighborhood associations and adjacent property owners participate in tree selection
- **Tree liaisons** – trained volunteers
- **Norwalk Tree Alliance (NTA)** – nonprofit to advocate for and partner to preserve and improve the urban forest
- NTA operates the **Fodor Tree Farm**

Goal: Norwalk has a connected green and blue network of parks, green streets, streams, and coastline.

WHY?

- Recreational use
- Environmental and habitat preservation
- Climate change resilience

HOW?

- Give **priority to** completion of the **Norwalk River Valley Trail**
- Seek **open space protection** opportunities **along Long Island Sound**, e.g., Manresa Island
- Create a **Green Streets network** by identifying priority walking streets for tree planting
- **Protect the water quality and habitat quality of streams, the river, and the Sound**

Goal: Norwalk's park and recreation system serves residents throughout the city.

WHY?

- People use parks more when they are within walking distance.
- Park use promotes public health.
- Recreational sites and programs should serve people across neighborhoods and income levels.

HOW?

- **Develop a Parks, Open Space, and Recreation System Plan**, including a management plan
- **Expand** the **Norwalker** program
- **Seek park opportunities in underserved parts of the city** so that all residents can walk or bike to a park
- **Survey residents regularly** to make sure recreation and park opportunities reflect changing demographics and needs
- Develop a **scholarship program** to support fee-based park and recreation activities for lower-income children and youth

SMARTPHONE SURVEY – PARKS & REC

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Poll: Do you think that the City of Norwalk should develop a Parks, Open Space, and Recreation System Master Plan?

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**Poll: Do you think the City of Norwalk
should give priority to finishing the
Norwalk segments of the Norwalk River
Valley Trail?**

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Poll: If the City were to create pocket parks in neighborhoods -- for example, single lots with play or exercise equipment, or places to sit – would you be likely to use them?

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Poll: Do you think that the City should give priority to investments in parks and other public spaces that provide access to water – the river, streams, and coast?

Table Exercise # 1 – Parks and Recreation

See handout sheet:

- **How would you allocate \$100 in spending for parks and recreation over the next 10 years?**

SUSTAINABILITY

What do we mean by “sustainability?”

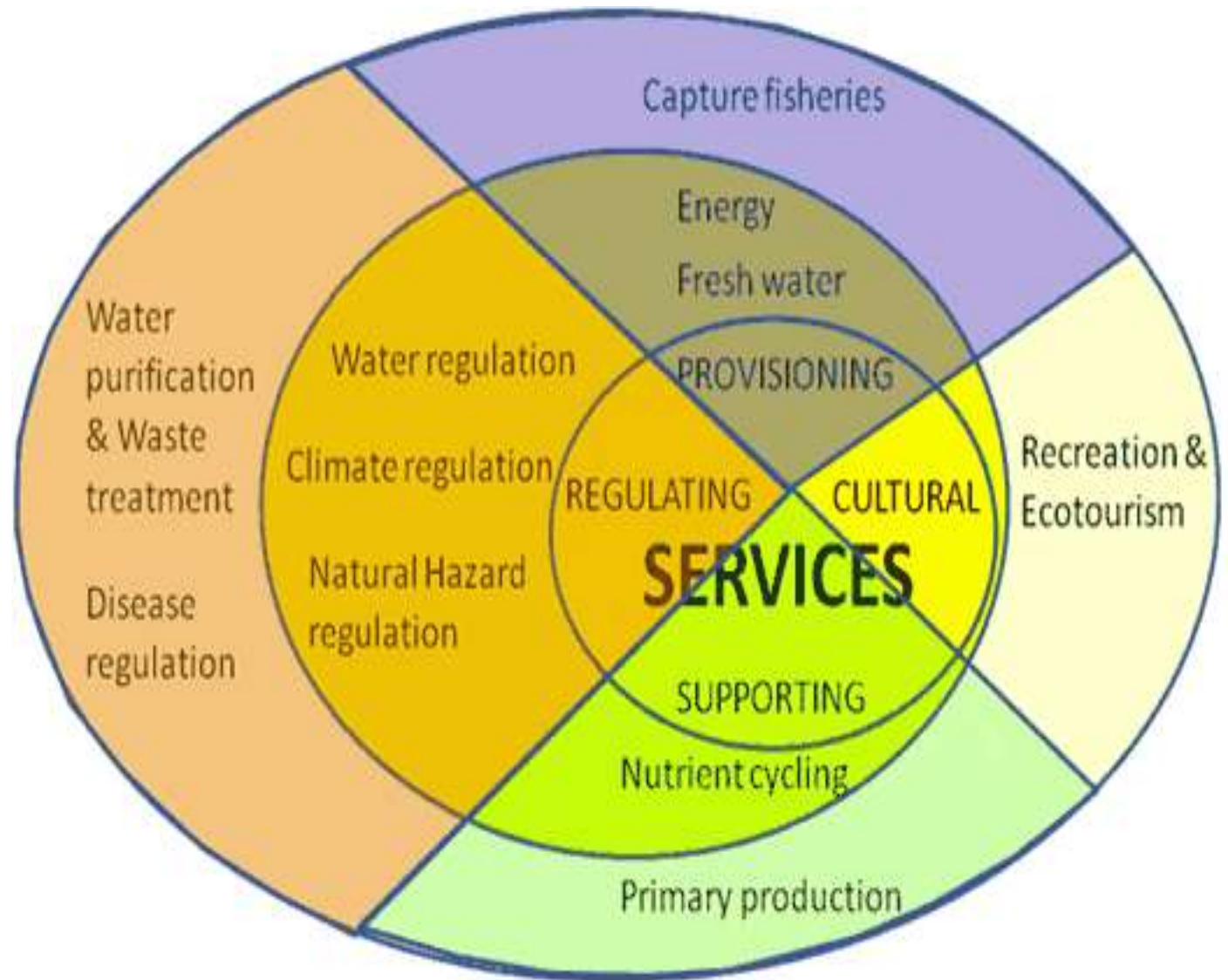
Meeting the needs of present generations without compromising the ability of future generations to meet their own needs.

- Don't use up all the resources today
- Promote healthy environmental systems and habitats
- Support conditions for continued ecosystem services



What are “ecosystem services?”

- **Provisioning** services: food, water, and other resources used by people
- **Regulating** services: flood, drought, land degradation, and disease control
- **Cultural** services: spiritual, recreational, and cultural benefits
- **Supporting** services: nutrient cycling that maintains the conditions for life on Earth



Systematic approaches to local sustainability

- Local sustainability rating and certification program
 - **STAR (Sustainability Tools for Assessing & Rating) Communities system**
 - Broad and integrated definition of sustainability
 - Quantitative and qualitative metrics – customize to the community
 - 70 communities across the US are STAR-certified in a transparent system
- Sends a message to prospective businesses and residents that the city is committed to sustainable practices

Built Environment	Climate & Energy	Economy & Jobs	Education, Arts, & Community	Equity & Empowerment	Health & Safety	Natural Systems	Innovation & Process
BE-1: Ambient Noise & Light	CE-1: Climate Adaptation	EJ-1: Business Retention & Development	EAC-1: Arts & Culture	EE-1: Civic Engagement	HS-1: Active Living	NS-1: Green Infrastructure	IP-1: Best Practices & Processes
BE-2: Community Water Systems	CE-2: Greenhouse Gas Mitigation	EJ-2: Green Market Development	EAC-2: Community Cohesion	EE-2: Civil & Human Rights	HS-2: Community Health	NS-2: Biodiversity & Invasive Species	IP-2: Exemplary Performance
BE-3: Compact & Complete Communities	CE-3: Greening the Energy Supply	EJ-3: Local Economy	EAC-3: Educational Opportunity & Attainment	EE-3: Environmental Justice	HS-3: Emergency Management & Response	NS-3: Natural Resource Protection	IP-3: Local Innovation
BE-4: Housing Affordability	CE-4: Energy Efficiency	EJ-4: Quality Jobs & Living Wages	EAC-4: Historic Preservation	EE-4: Equitable Services & Access	HS-4: Food Access & Nutrition	NS-4: Outdoor Air Quality	IP-4: Good Governance
BE-5: Infill & Redevelopment	CE-5: Water Efficiency	EJ-5: Targeted Industry Development	EAC-5: Social & Cultural Diversity	EE-5: Human Services	HS-5: Health Systems	NS-5: Water in the Environment	
BE-6: Public Parkland	CE-6: Local Government GHG & Resource Footprint	EJ-6: Workforce Readiness	EAC-6: Aging in the Community	EE-6: Poverty Prevention & Alleviation	HS-6: Hazard Mitigation	NS-6: Working Lands	
BE-7: Transportation Choices	CE-7: Waste Minimization				HS-7: Safe Communities		

Sustainable CT

Local Actions. Statewide Impact.



- New state program similar to STAR
- Voluntary certification
- Founded by Connecticut Conference of Municipalities and others
- Foundation funded

1. Thriving local economies
2. Well-stewarded land and natural resources
3. Vibrant and creative cultural ecosystems
4. Dynamic and resilient planning
5. Clean and diverse transportation systems and choices
6. Efficient physical infrastructure and operations
7. Strategic and inclusive public services
8. Healthy housing options
9. Inclusive and equitable community impacts

Systematic evaluation of infrastructure projects

- **Clear and transparent** processes
- **Align priorities** with community, owner, and stakeholder values
- **Satisfy capital financing** requirements
- **Business case** analytic tools
- Zofnass **Economic Process tool**
- Adopted by major jurisdictions
- **Free use** (payment only for certification)
- Norwalk DPW has an Envision-certified engineer

THE ENVISION™ RATING SYSTEM



INSTITUTE FOR
SUSTAINABLE
INFRASTRUCTURE



ZOFNASS PROGRAM
FOR SUSTAINABLE INFRASTRUCTURE
Graduate School of Design
Harvard University

Envision Categories and Sub-Categories

	QUALITY OF LIFE 13 Credits	Purpose, Community, Wellbeing
	LEADERSHIP 10 Credits	Collaboration, Management, Planning
	RESOURCE ALLOCATION 14 Credits	Materials, Energy, Water
	NATURAL WORLD 15 Credits	Siting, Land & Water, Biodiversity
	CLIMATE AND RISK 8 Credits	Emissions, Resilience

Greenhouse gas (GHG) emissions reduction

Conn. Gen. Stat. Sec 22a-200a Global Warming Solutions

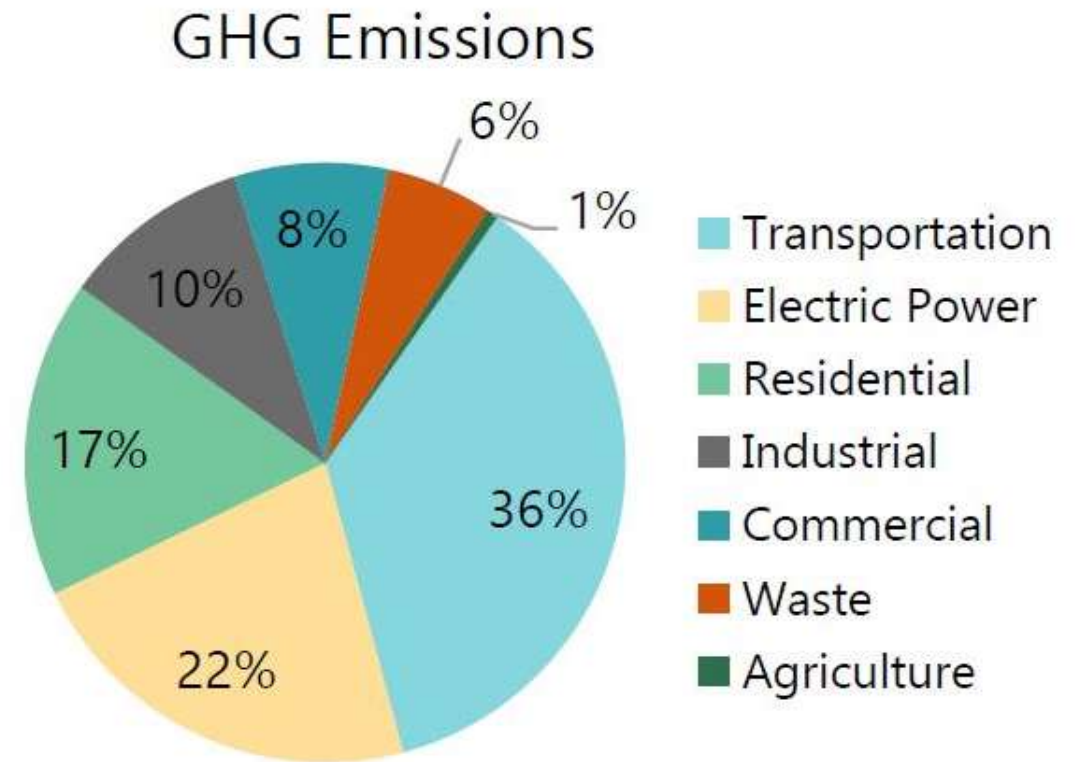
Act: State to reduce GHG emissions by 10% from 1990 levels by 2020 and 80% from 2001 levels by 2050



Greenhouse gas emissions reduction

- **Transportation sector - single largest source of emissions in CT:**
 - 36 percent of emissions mostly from the use of fossil fuels in passenger cars and light-duty trucks.
 - Drop of less than 1% since 1990

GHG Emissions by Sector



Resource protection

- **Water quality and quantity** protection
- Reduce nonpoint source pollution through **enhanced stormwater management**

Norwalk example:

Steppingstones Museum

- Low Impact Drainage strategies
- Rain Gardens
- Green Roof
- Pervious Pavements
- Native Plant Designs
- Solar Energy Design



Goal: Make Norwalk City government a model of sustainability

WHY?

- Increase energy- and resource-efficiency and reduce costs
- Reduce greenhouse gas emissions from buildings and transportation
- Protect natural resources
- Model sustainability for residents and the private sector

HOW?

- Adopt and maintain **systems to evaluate and monitor sustainability efforts**: e.g., STAR, Sustainable CT, and/or Envision
- Establish **policies for city government**, such as:
 - *Electric vehicles*: incremental replacement of City vehicles with electric or hybrid vehicles
 - Electric vehicle *charging stations* at City facilities and new large developments
 - *LED lighting*: incremental replacement throughout the City
 - Non-toxics procurement policies
- Promote availability of **renewable energy by all energy providers**



Goal: Norwalk reduces greenhouse gas emissions consistent with state goals.

WHY?

- **Contribute to state commitment** to reducing emissions and renewable energy and the Regional Greenhouse Gas Initiative
- **Enhance energy-efficiency and life cycle cost reduction**
- Work with the **Connecticut Green Bank**

HOW?

- Develop a Climate Action Plan
 - **Greenhouse gas (GHG) inventory and reduction plan**
 - Connecticut cities with plans include Hartford, Stamford, New Haven, Bridgeport
- Climate action plans through the Global Covenant of Mayors program:



SMARTPHONE SURVEY - SUSTAINABILITY

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**Poll: Would you like Norwalk to be known
in the region as a model and leader in
sustainability and energy-efficiency?**

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Poll: Should Norwalk take a systematic approach to sustainability by using rating systems such as STAR and/or the Envision as frameworks for integrated and long-term sustainability?

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**Poll: Do you think Norwalk city
government should create a Climate
Action Plan to reduce greenhouse gas
emissions?**

RESILIENCE

What do we mean by “resilience”?

- The ability of a community to **adapt and thrive in the face of extreme events and stresses.**
 - **Anticipate risk**
 - **Plan to limit impacts**
 - **Implement adaptation strategies** integrating all community systems – civic, environmental, social and economic – to support recovery and growth.
- Resilience is not the same thing as sustainability, although they are related.

Expected Climate Change & Resilience Effects

- More extreme storm events / precipitation in winter, spring
- Higher temperatures
- More and longer heat waves
- Summer droughts
- Sea level rise



Connecticut Institute for Resilience and Climate Adaptation (CIRCA)

- Partnership of University of Connecticut and State Dept of Energy and Environmental Protection
- Research
- Grants for municipal resilience programs (currently closed, may reopen)

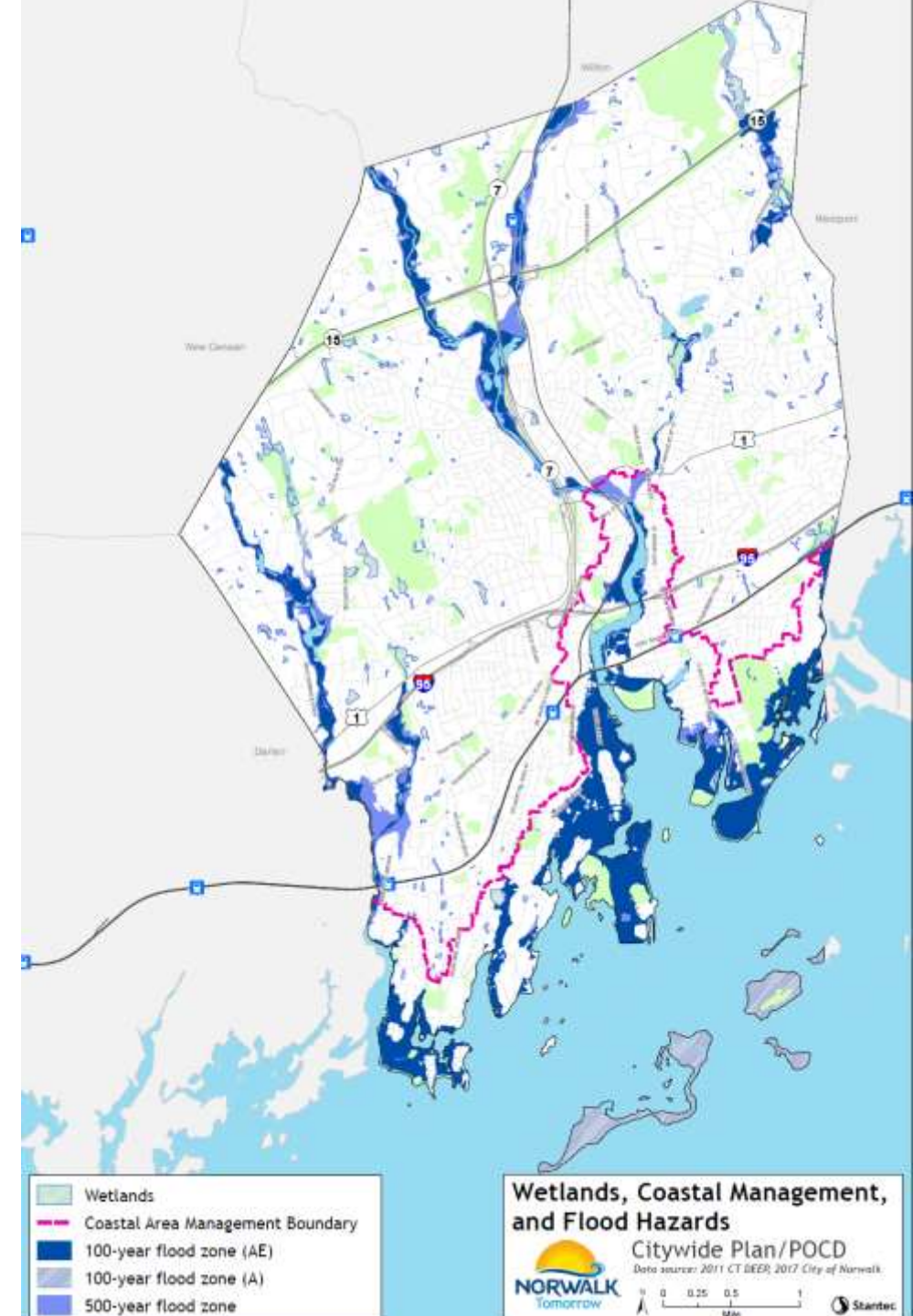
Sea Level Rise (SLR)

UConn research results:

- **Plan for a 0.5 meter (one foot, 8 inches) sea level rise by 2050**
- Western CT coastal flooding risk also affected by tides and storm surge.
- **Expect more frequent 10-yr and 100-yr floods**

Flood vulnerability

- Chronic flooding is already an issue with normal storms.
- Sea level rise and extreme storms will increase flood risk.
- Existing 1% annual risk means 26% likelihood of flooding during a 30-year mortgage period.



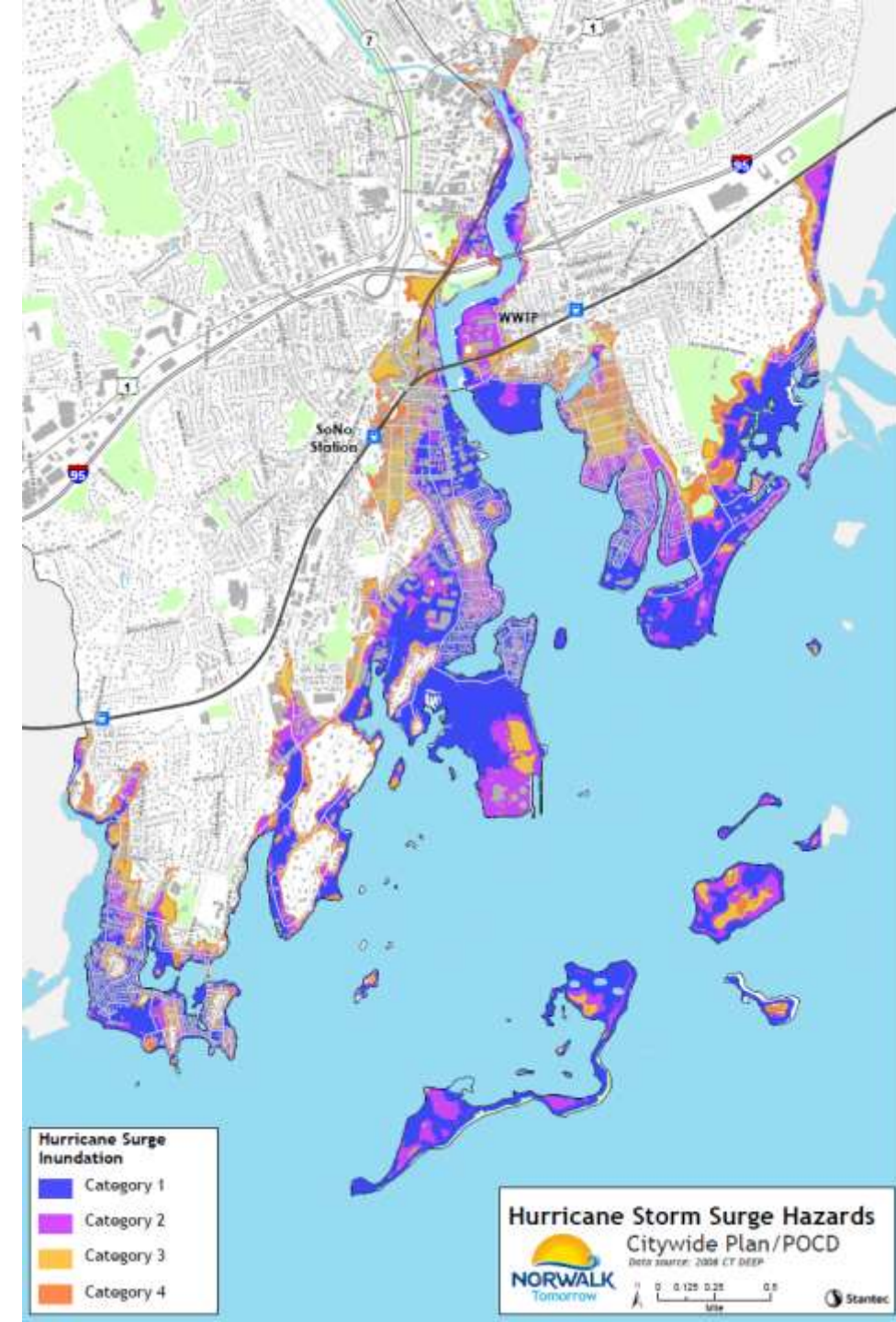
Sea level rise plus storm surge = more vulnerability

Hurricane Category 1 or 2 storm impacts:

- 2,036 parcels (78% residential or mixed use)

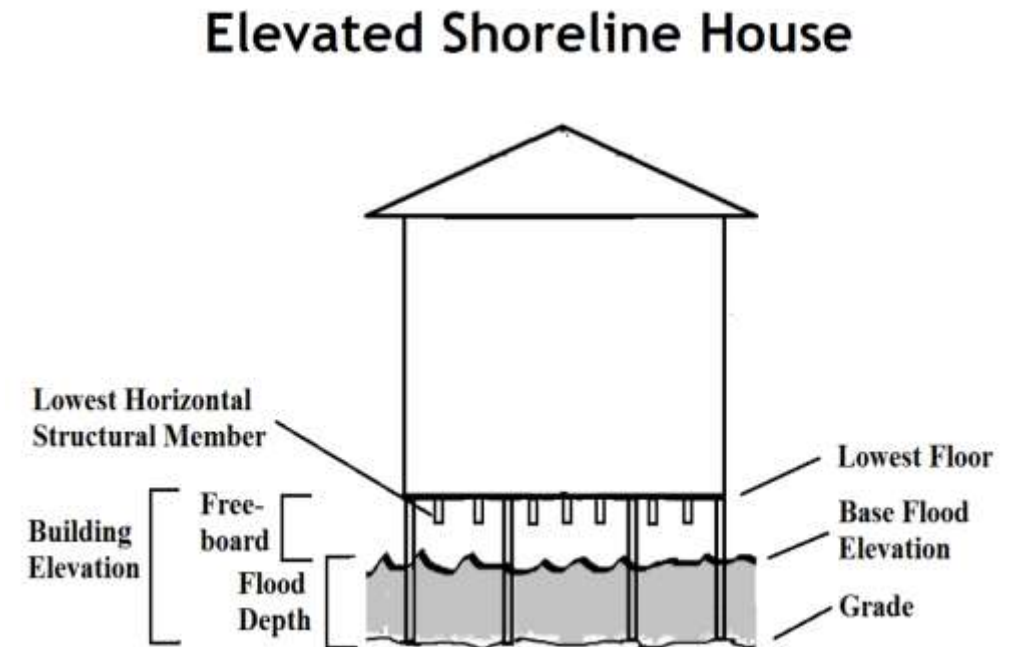
Hurricane Category 4 storm impacts:

- 3,219 parcels (77% residential or mixed use)



What Norwalk has already done

- Floodplain building elevation requirements
 - **1 foot above BFE for new construction or construction worth 50% or more of appraised value**
 - Best practice: 2 ft above BFE
 - Cost typically recouped in insurance savings
- Norwalk is now part of a **regional Community Rating System (CRS) program for FEMA flood insurance discounts**



Regional Hazard Mitigation Plan (SW CT)

What Norwalk has already done:

- Generators in city buildings
- Phone notification and evacuation plans
- Emergency Operations Center
- Public information program
- City funding for drainage and flood mitigation
- Upgrade dam spillways



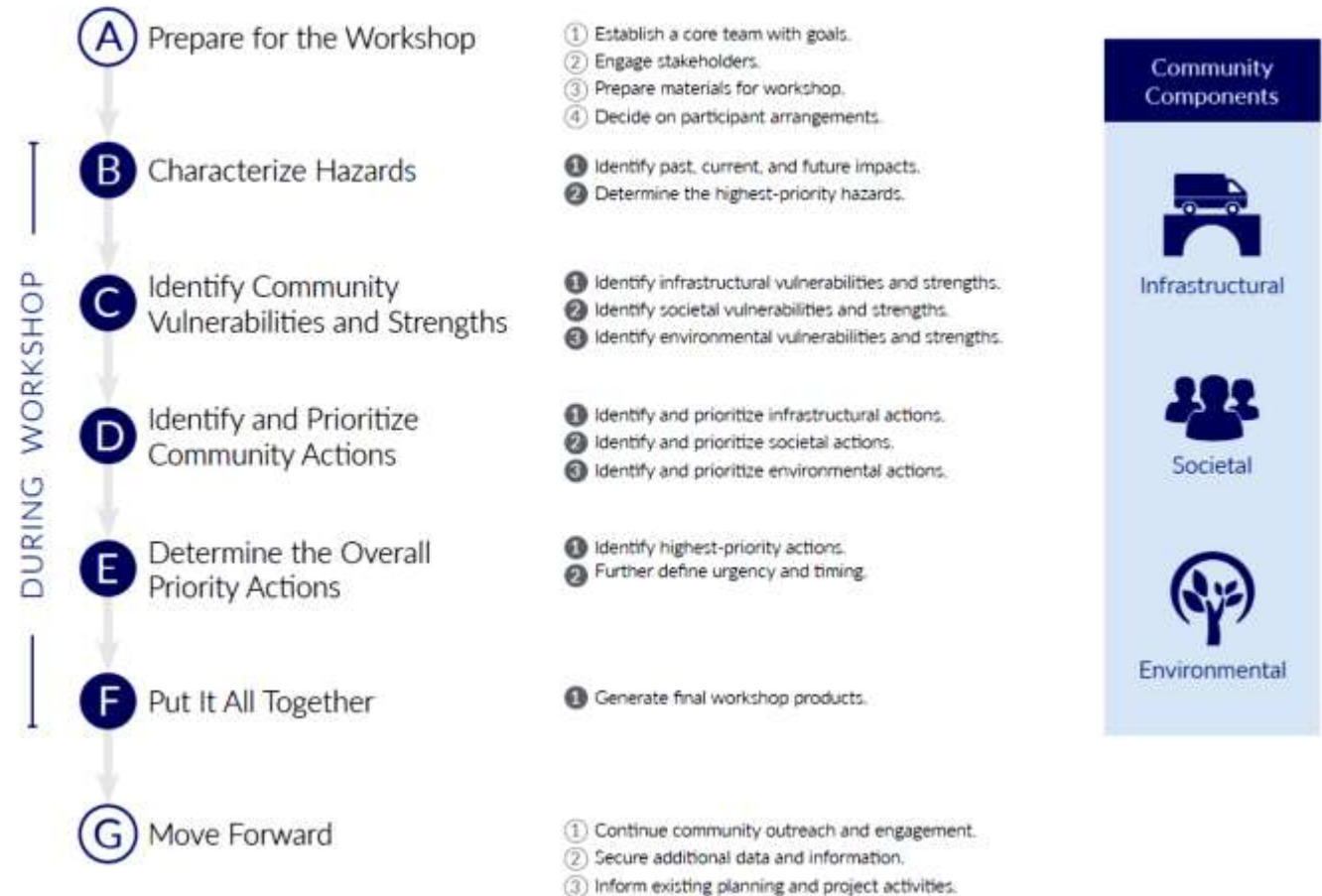
Hazard Mitigation priorities for 2016-2021

- **Back up generators:** sewer and stormwater pumps, shelter areas
- **Raise vulnerable pumps**
- Mitigation: wastewater treatment plant/DPW Center; **raise and expand levee around WWTP**
- Regional collaboration on **shelter and evacuation plans**
- **Public education** on hazards, especially to most vulnerable populations

Climate change vulnerability assessments

- **Community Resilience Building Workshop** model
- Connecticut use: Madison, Hudson, Stamford, Windham
- Participants identify top hazards, current challenges, strengths, priority actions

Overview of the Process (Steps & Tasks)



Green infrastructure: protects, restores, or mimics the natural water cycle.

Benefits:

- Reduce flooding
- Replenish groundwater resources
- Use less energy managing water (less rain and stormwater goes into the sewer system)
- Protect coastal resources
- Reduce the urban heat island effect
- Lower building energy use

Soak It Up, Philly!

How green tools manage stormwater

The challenge

During heavy storms, rainwater overwhelms the sewer system, sending pollutants into our creeks and rivers.

The solution

The *Green City, Clean Waters* program promotes the use of green tools that capture stormwater before it enters sewers. Green means we use plants, trees and stone to filter, store and manage stormwater more effectively.

The benefits

These green tools are smart and cost-effective ways to manage stormwater. Green tools like these help remove over 80% of the pollutants entering our creeks and rivers. Learn more at: www.phillywatersheds.org



Green City, Clean Waters

Setting the national standard for environmentally-friendly stormwater management with Philadelphia's communities.

Partners and sponsors:

City of Philadelphia
Philadelphia Streets Department
Philadelphia Parks & Recreation

Scan here to see how
Green City, Clean Waters
is transforming Philadelphia!



Goal: Norwalk plans for and adapts to climate change.

WHY?

- Norwalk is beginning to experience climate change impacts.
- Plans can help mitigate impacts such as chronic flooding and increased heat.

HOW?

- Prepare a **Climate Change Vulnerability Assessment**
- Establish a **multiple lines of defense approach** to coastal flooding and storm surge
- Develop a **long-term green infrastructure plan for stormwater management** throughout the city in public and private property
- Promote **actions to mitigate increased heat**, such as cool roofs

SMARTPHONE SURVEY - RESILIENCE

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Poll: Should the City of Norwalk develop a climate change vulnerability assessment to identify priorities to prepare for climate change adaptation?

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Poll: Should the City of Norwalk develop a systematic plan for using green infrastructure to the maximum degree feasible?

Coastal / Harbor Management

Connecticut Coastal Management Program

Purposes:

- Protect and restore coastal resources
- Manage coastal development, prioritize water-dependent uses
- Facilitate access to public trust beaches, waters and submerged lands.

Local management by the
Norwalk Harbor Commission

State-required attention to sea
level rise in decision-making

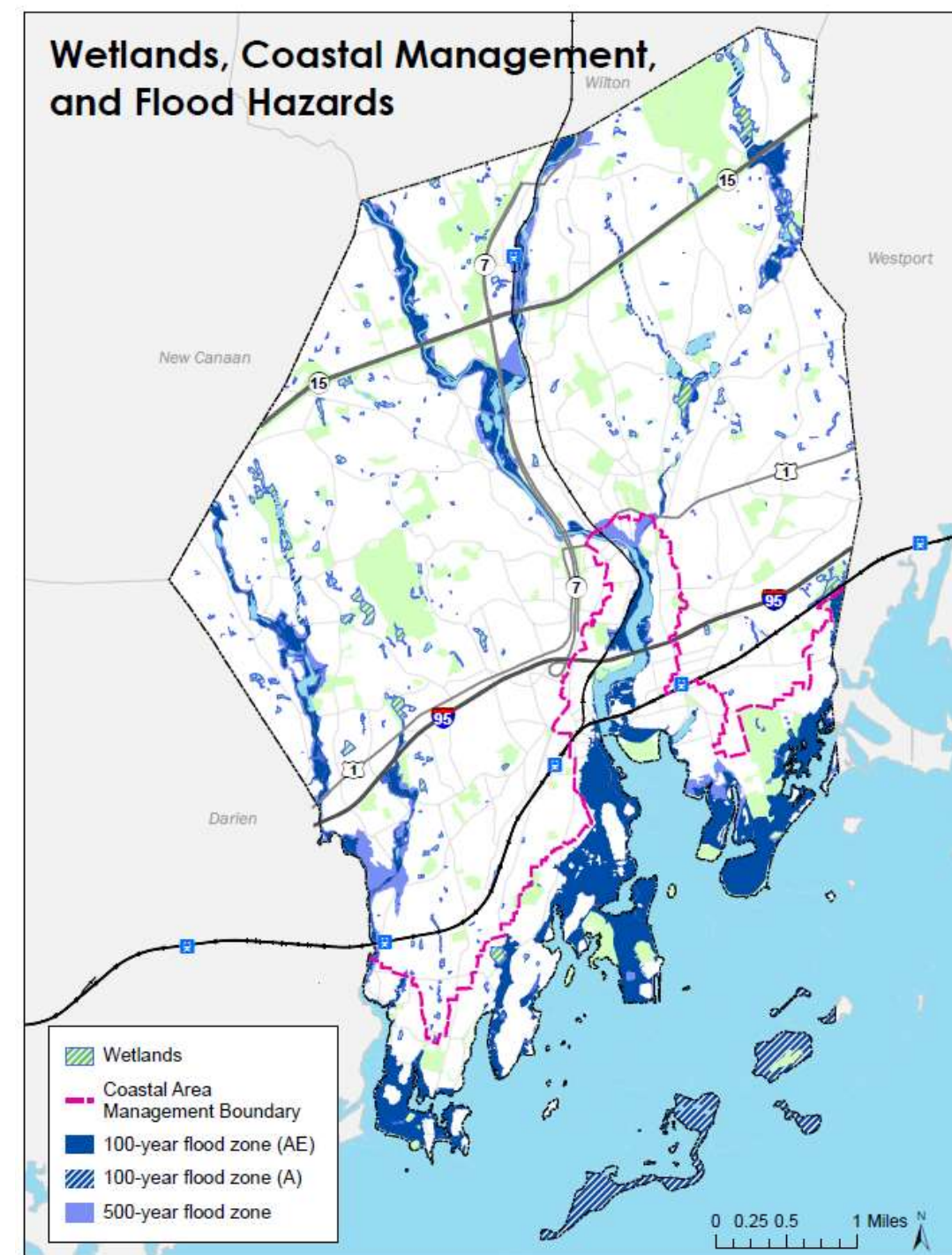


Source: Geoffrey Stedman

Norwalk Harbor Management Plan (1990; amended 2009)

Principles:

- Maintain public **safety**
- Protect coastal **resources and environmental quality**
- Support **beneficial uses of the Harbor** Management Area including
 - Water dependent uses
 - Public access



Norwalk Harbor Management Commission development review responsibilities

- Review development proposals
- Review proposed uses waterward of state's coastal jurisdiction line (calculated by the state)
- Review proposed revisions to plans affecting land on, in, or contiguous to the Harbor Management Area.

Harbor Management concerns

Preserving water dependent uses and waterfront access

- Upper harbor waterfront
- Liberty Square waterfront use after Walk Bridge staging completed
- South Water Street marina area
- Cove Marina area in East Norwalk

Environmental improvement and protection

- I-95 corridor pollution impacts and possible future high speed rail plan on I-95
- Manresa site

Goal: Protect Norwalk's coastal environmental resources.

WHY?

Benefits:

- Storm and flood protection
- Pollution mitigation
- Habitat preservation
- Shellfish and fish harvest
- Recreation and tourism

Resources:

- Tidal wetlands
- Intertidal flats
- Beaches
- Shellfish beds
- Fish and wildlife
- The Norwalk Islands
(including Stewart B.
McKinney National Wildlife
Refuge)

HOW?

- Program to encourage **reduction of impervious surfaces and use of green infrastructure**
- **Collaborate with others (e. g. nonprofits) to further protect coastal wetlands**, such as resources on Manresa Island
- Advocate for **reduction of runoff pollution from state and interstate roads**

GOAL: Protect resources for water-dependent uses

WHY?

- Commercial fishing businesses, including shellfishing
- Between 2,000 and 3,000 commercial vessel trips to and from the Harbor's port terminals occur each year
- Maintenance dredging of federal channels between 2005-2009:
 - Over \$10 million allocated by federal government
 - Another \$1 million by the State

HOW?

- **Update Harbor Management Plan as needed** to evaluate and preserve water-dependent uses
- Develop **criteria to use in review cases** on water-dependent uses
- **Collaborate with sustainability and resilience plans and implementation**

GOAL: Protect and enhance public access to the harbor and coast

WHY?

- Resident desire for access to the water and recreational use of the water
- 15 commercial marinas and 13 private clubs
- over 500 harbor mooring locations serving recreational vessels.
- David S. Dunavan Boating Center at Veteran's Memorial Park (over 3,000 trailered boat launches each year)
- Public parks: Veteran's Memorial Park, Calf Pasture Park, Norwalk Heritage Park

HOW?

- Promote **public access** where feasible and safe
- Advocate for **completion of the NRV**
- Return the **Liberty Square waterfront** to public access uses



TABLE EXERCISE #2

Individual form and table discussions:

Priority projects/actions for the second half of the implementation period in the categories of:

- Parks, recreation, open space, trails
- Sustainability
- Resilience
- Harbor management

QUESTIONS AND COMMENTS



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